

Date: Wednesday, 2/20/2008 4:22:04 PM  
 User: Kim Johnston

## Process Sheet

Customer	: CU-DAR001 Dart Helicopters Services	Drawing Name	: R/H STEP ASSY
Job Number	: 37532		
Estimate Number	: 13170		
P.O. Number	:	Part Number	: D3724042
This Issue	: 2/20/2008 S.O. No. :	Drawing Number	: D3724 U/R
Prsht Rev.	: NC	Project Number	: N/A
First Issue	: / / Type : LARGE FAB ASSY	Drawing Revision	: U/R
Previous Run	: 37531	Material	:
Written By	:	Due Date	: 3/10/2008
Checked & Approved By	:	Qty:	1 Um: Each
Comment	: Est Rev: A new issue 08-02-07 DD verified by:		



Additional Product

Job Number:



Seq. #:	Machine Or Operation:	Description :
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1.0	D2622120C	Extrusion
-----	-----------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Qty	Part #	Description
1	D2622-120C	Extrusion

Batch:  
 B 35618  
 B 34694

Check Material for any Dents or Defects

*Handwritten:* 08-02-25

2.0	LARGE FAB 1	LARGE FABRICATION RESOURCE 1
-----	-------------	------------------------------



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D3737-1 as per dwg D3737 = B35618

2-Cut D3738-1 as per dwg D3738 = B34694

3-Deburr and bevel ends for welding

*Handwritten:* 08-02-25

*Handwritten:* 08-02-25

*Handwritten:* 08-02-25

3.0	QC5	INSPECT WORK TO CURRENT STEP
-----	-----	------------------------------



Comment: INSPECT WORK TO CURRENT STEP

*Handwritten:* 08-25

4.0	D37331	GUSSET
-----	--------	--------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

GUSSET  
 batch B 31297

*Handwritten:* 08-02-25

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R/H STEP ASSY

Job Number: 37532

Part Number: D3724042

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Weld D3738-1, D3737-1 and D3733-1 as per dwg D3724

2-Grind flush

*Handwritten:* 08.02.25  
08.02.25

6.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*Handwritten:* 08-02-25

7.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

*Handwritten:* 08.02.25

8.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*Handwritten:* m-1

*Handwritten:* 08/02/26

*Handwritten:* (X)

9.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*Handwritten:* 08.02.26

10.0

D2734

206 Step Endplate



Comment: Qty.: 2.0000 Each(s)/Unit Total : 2.0000 Each(s)

206 Step Endplate

batch *Handwritten:* 36520

*Handwritten:* 08.03.13

11.0

D37281

PLATE



Comment: Qty.: 3.0000 Each(s)/Unit Total : 3.0000 Each(s)

PLATE

*Handwritten:* X

batch *Handwritten:* 37579

12.0

D37291

PLATE



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

PLATE

*Handwritten:* X

batch *Handwritten:* B 375804 x(1)

*Handwritten:* no.

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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Drawing Name: R/H STEP ASSY

Job Number: 37532

Part Number: D3724042

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

D37301

ANGLE



Comment: Qty.: 8.0000 Each(s)/Unit Total : 8.0000 Each(s)

ANGLE

batch

37576 x (8), 637401 x (5)

14.0

D37411

ANGLE



Comment: Qty.: 8.0000 Each(s)/Unit Total : 1.0000 Each(s)

ANGLE

batch

B 37762 x (8)

15.0

MS20470AD511

Rivet



Comment: Qty.: 12.0000 Each(s)/Unit Total : 12.0000 Each(s)

Rivet

batch

m107100 x (3)

mf 08-03-13

16.0

MS20470AD516

Rivet



Comment: Qty.: 4.0000 Each(s)/Unit Total : 4.0000 Each(s)

Rivet

batch

m107100 x (3)

mf 08-03-13

17.0

CR321354

Cherry Rivet



Comment: Qty.: 32.0000 Each(s)/Unit Total : 32.0000 Each(s)

Cherry Rivet

batch

m107100

mf 08-03-13

18.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

PTO

1-Apply Magnobond before installing rivets

A/R Magnobond 6398 Batch: m104677

2-Rivet D3741-1 and D3730-1 to brackets before installing on step as per dwg D3724

3-Transfer holes from D3730-1 and D3741-1 into step as per dwg D3724

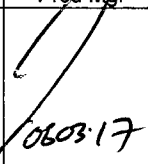
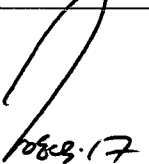
4-Deburr

mf 08-03-13

mf 08-03-13

mf 08-03-13

# Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
08-03-12	18	Took 9 rivets ms20470AD576 and cut down to size to fit angle 3730-1 (instead of ms20470AD511)	MCF	08-03-13	3	 0603.17	 0603.17

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Wednesday, 2/20/2008 4:22:04 PM  
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## Process Sheet

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Drawing Name: R/H STEP ASSY

Job Number: 37532

Part Number: D3724042

Job Number:



Seq. #:

Machine Or Operation:

Description :

5- realodine holes

19.0

LARGÉ FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Apply magnabond as per dwg D3724

A/R Magnabond 6398 Batch: M106695

2-Rivet brackets in place on step as per dwg D3724

3-Weld both end cap as per Dwg D3724

4-Grind end cap welds flush

Inspect for foreign object per QSI 024

*PE 08.03.14 1*  
*PE 08.03.14 1*  
*PE 08.03.14 1*  
*SAD 08.03.14 1*

20.0

QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

*ID 08-03-15 ①*

21.0

QC5

INSPECT WORK TO CURRENT STEP



**ENGINEERING  
APPROVAL**



Comment: INSPECT WORK TO CURRENT STEP

*2 08/03/15*

22.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



*(1X)*

Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

*M-f / a.m 08/03/15*

23.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

*M 107005*

*BL 08-03-17 ①*

24.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

*F2 08/03/17 ①*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☒ No ☐ DQA: AD Date: 02/03/17  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



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Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: R/H STEP ASSY

Job Number: 37532

Part Number: D3724042

Job Number:



Seq. #:

Machine Or Operation:

Description :

25.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



m/107385



Comment: Wing Walk as per Dwg D3043 and QSI 005 4.4

FR 08/03/17 ①

26.0

QC5

INSPECT WORK TO CURRENT STEP



0803.17 ①



Comment: INSPECT WORK TO CURRENT STEP

27.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

PP

37518

8/3/17

①

SP

28.0

QC21

FINAL INSPECTION/W/O RELEASE



①

Comment: FINAL INSPECTION/W/O RELEASE

08/03/17

Job Completion



m-2008/3/17 ①

POSITIVE RECALL

EFFECTIVE 08/02/21 AUTH u

RELEASED \_\_\_\_\_ DATE \_\_\_\_\_

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

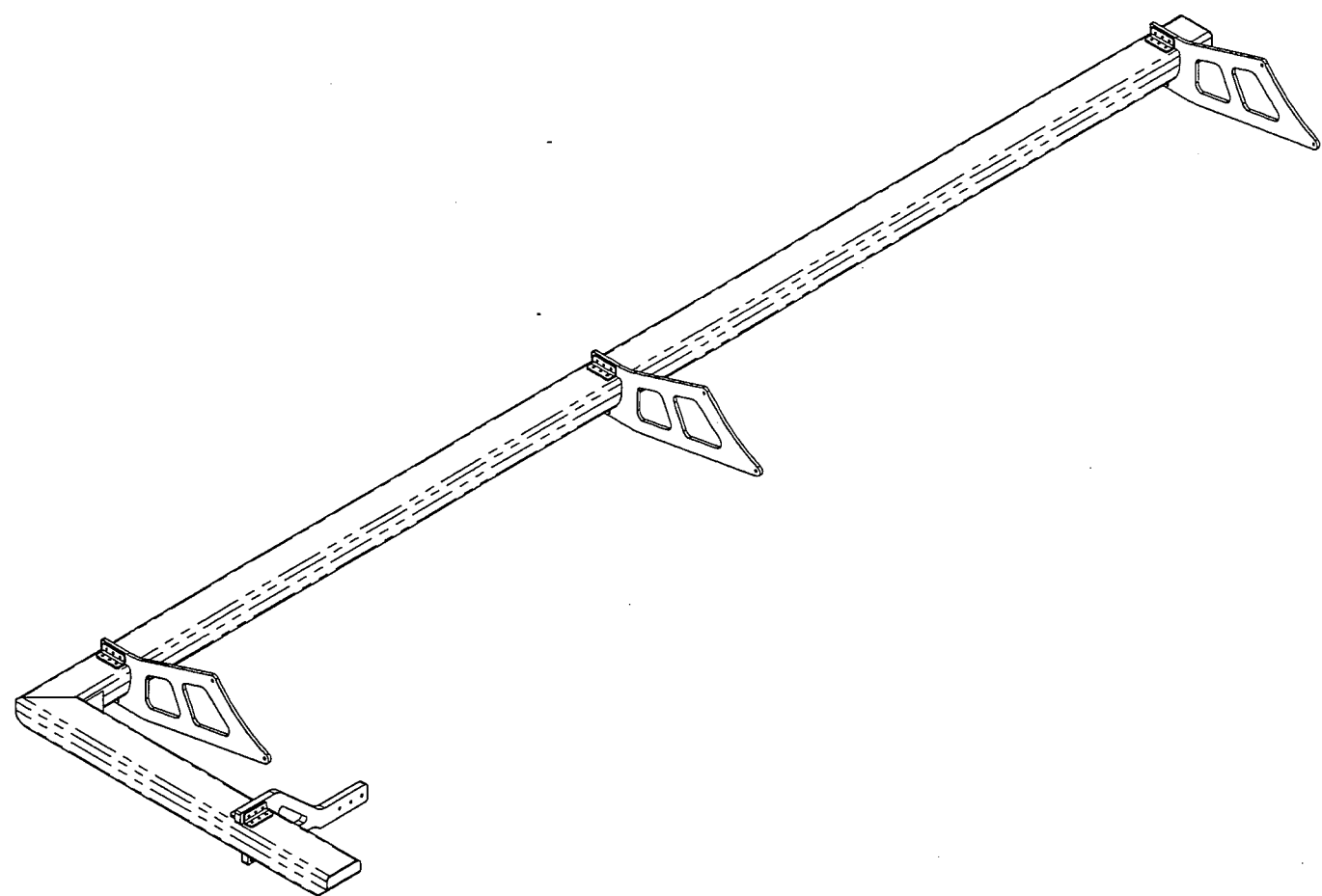
Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

8 7 6 5 4 3 2 1



D3724-042 STEP ASSY

QTY -042	P/N	DESCRIPTION
X	D3724-042	STEP ASSY
2	D2734-1	END PLATE
3	D3728-1	STEP BRACKET
1	D3729-1	STEP BRACKET
8	D3730-1	ANGLE
1	D3733-1	GUSSET
1	D3737-1	STEP
1	D3738-1	STEP
8	D3741-1	ANGLE
32	CR3216-5-4	RIVET
3	MS20470AD5-11	RIVET
1	MS20470AD5-16	RIVET

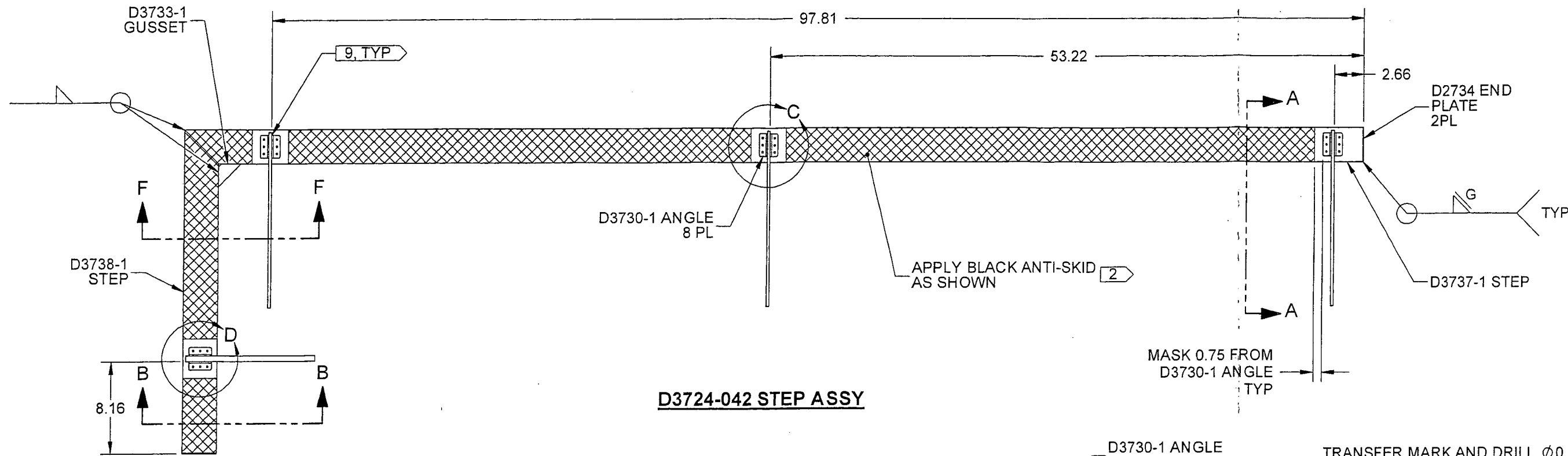
SHOP COPY  
RETURN TO  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 37532

PRELIMINARY ISSUE  
LE 08.02.15

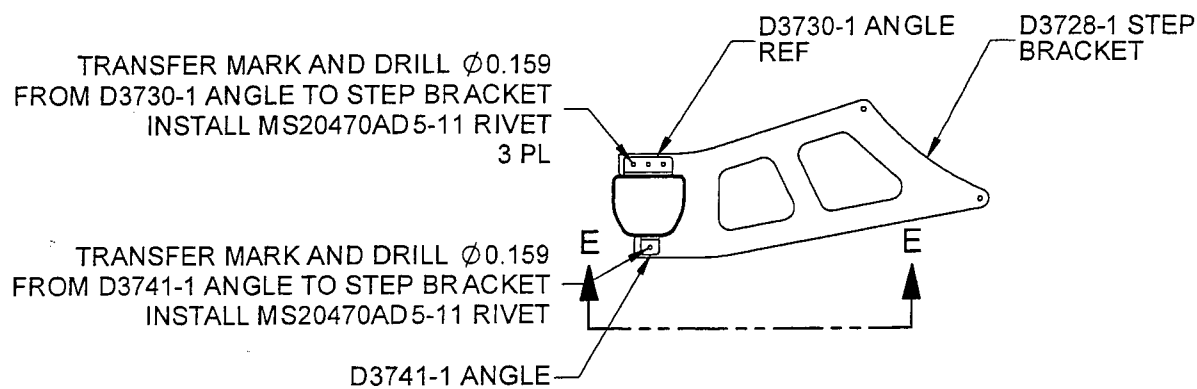
- NOTES:
- 1) MATERIAL: NONE
  - 2) FINISH: CHEMICAL CONVERSION COAT WELDMENT PER DART QSI 005 4.1 PRIOR TO ASSEMBLY  
POWDER COAT ENTIRE ASSEMBLY WHITE GLOSS (4.3.5.1) PER DART QSI 005 4.3  
APPLY BLACK ANTI-SKID PER DART QSI 005 4.4 WHERE INDICATED
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 13.91 lbs
  - 8) WELDING: PER DART QSI 004
  - 9) APPLY MAGNOBOND 6398 BETWEEN MATING SURFACES WHERE INDICATED

A	NEW ISSUE		AJS	08.02.04
REV.	DESCRIPTION		BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
DRAWN	JS			
CHECKED	LE	DRAWING NO.	REV. A	
MFG. APPR.		D3724	SHEET 1 OF 2	
APPROVED		TITLE	SCALE	
DE APPR.	LE	STEP ASSY	NTS	
DATE	08.02.04		COPYRIGHT © 2008 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

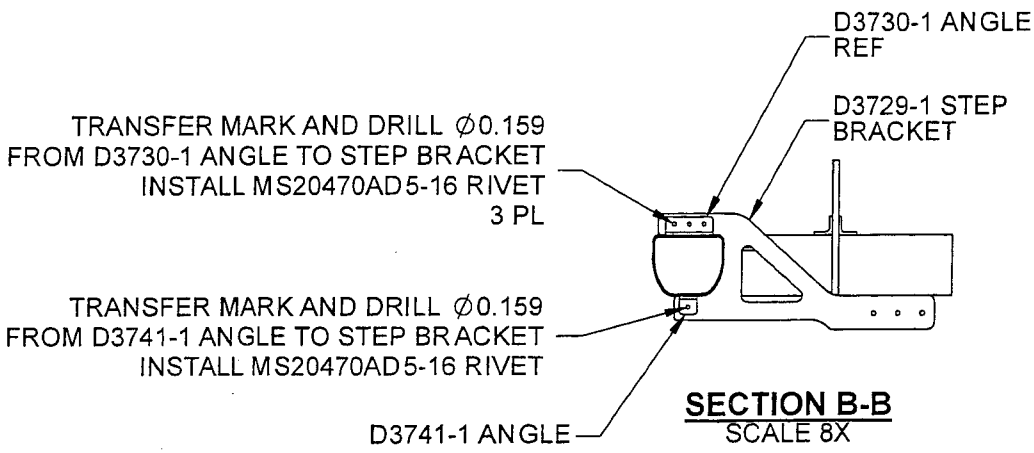
8 7 6 5 4 3 2 1



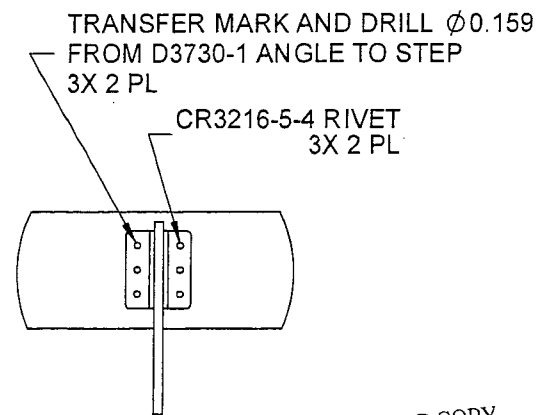
**D3724-042 STEP ASSY**



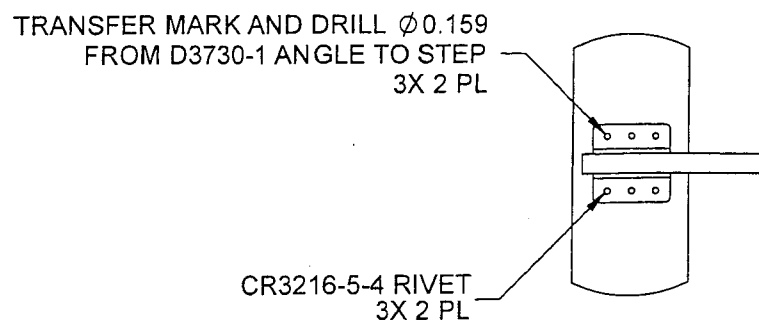
**SECTION A-A**  
SCALE 8X  
(TYP, 3 PL)



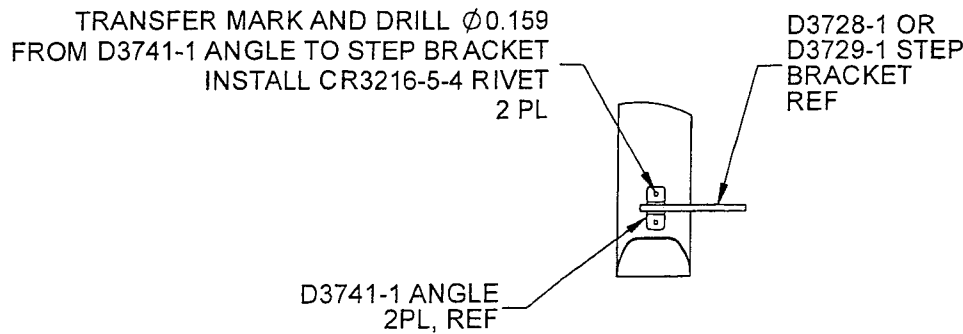
**SECTION B-B**  
SCALE 8X



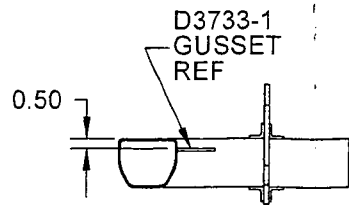
**DETAIL C**  
SCALE 5X  
(TYP, 3 PL)



**DETAIL D**  
SCALE 5X



**SECTION E-E**  
SCALE 8X  
(TYP, 4 PL)

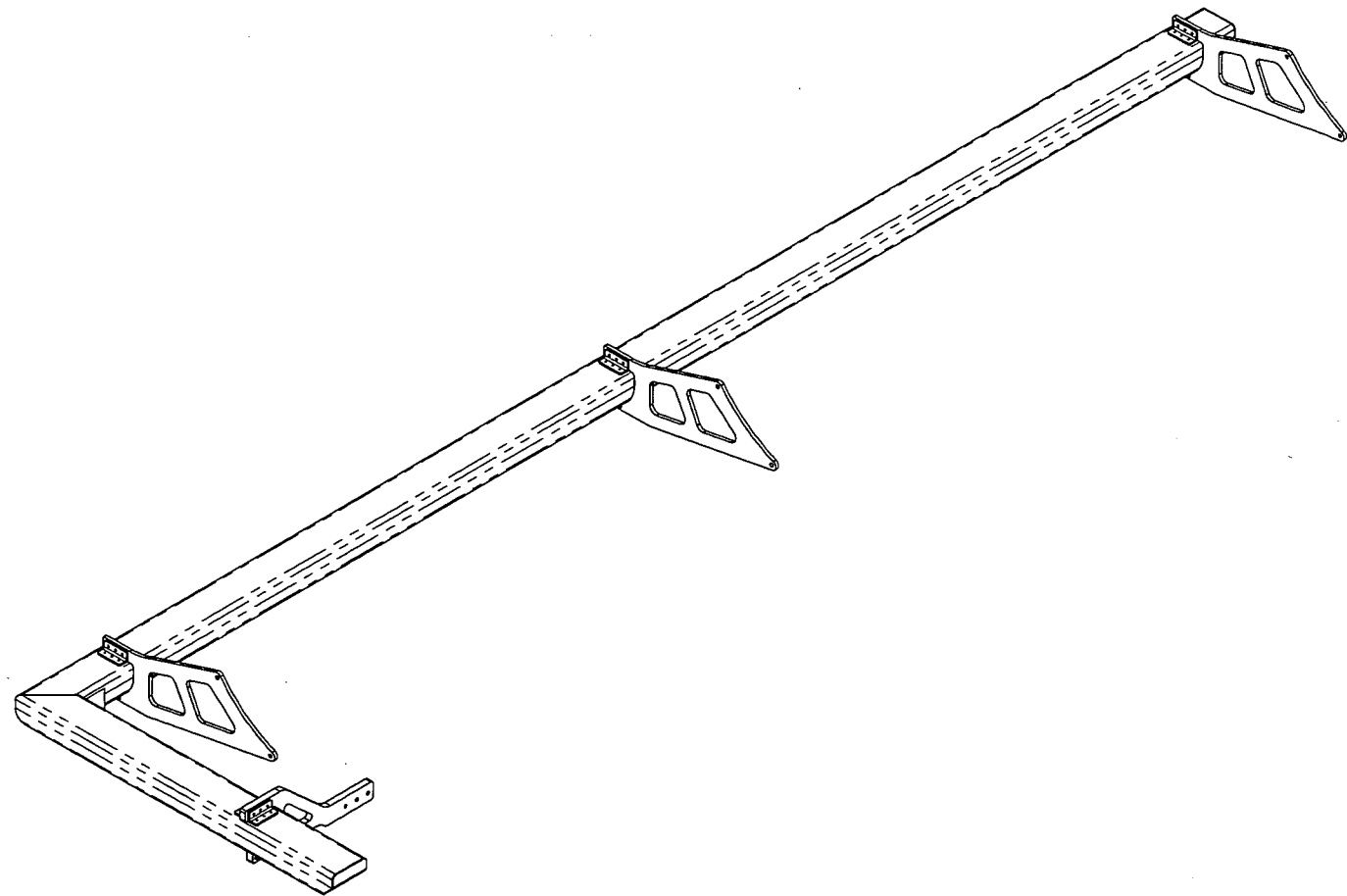



**SECTION F-F**  
SCALE 10X

SHOP COPY  
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SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 37532

**PRELIMINARY ISSUE**  
LE 08.02.15

DESIGN	AJS	<b>DART AEROSPACE LTD</b>	
DRAWN	LE	HAWKESBURY, ONTARIO, CANADA	
CHECKED	LE	DRAWING NO. <b>D3724</b>	REV. A
MFG. APPR.		SHEET 2 OF 2	
APPROVED		TITLE <b>STEP ASSY</b>	SCALE NTS
DE APPR.		COPYRIGHT © 2008 BY DART AEROSPACE LTD	
DATE	08.02.04	THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

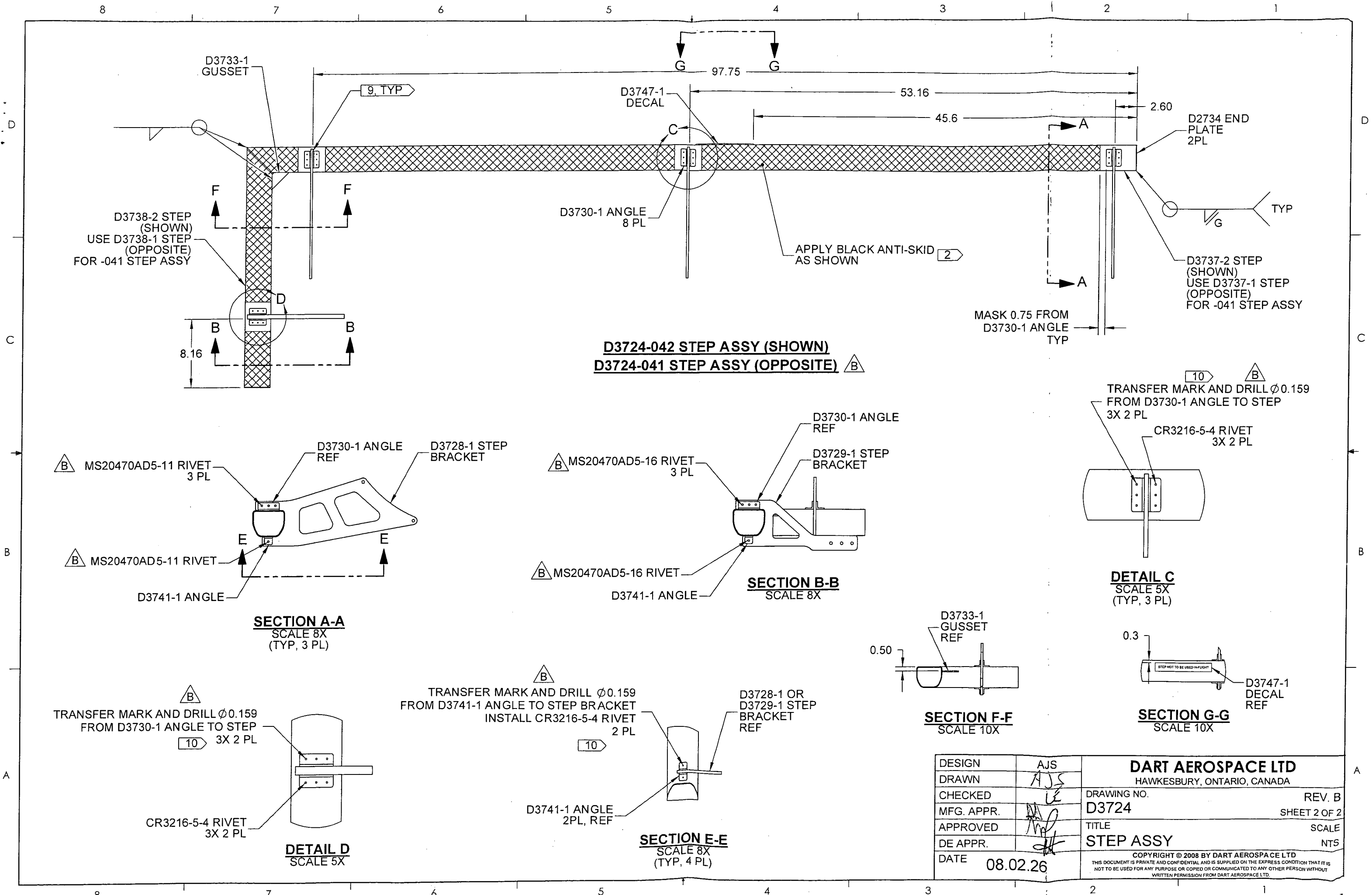


**D3724-042 STEP ASSY (SHOWN)**  
**D3724-041 STEP ASSY (OPPOSITE) **

- NOTES:
- 1) MATERIAL: NONE
  - 2) FINISH: CHEMICAL CONVERSION COAT WELDMENT PER DART QSI 005 4.1 PRIOR TO ASSEMBLY  
POWDER COAT ENTIRE ASSEMBLY WHITE GLOSS (4.3.5.1) PER DART QSI 005 4.3  
APPLY BLACK ANTI-SKID PER DART QSI 005 4.4 WHERE INDICATED
  - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
  - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
  - 5) BREAK SHARP EDGES: N/A
  - 6) IDENTIFICATION: N/A
  - 7) WEIGHT: 13.89 lbs
  - 8) WELDING: PER DART QSI 004
  - 9) APPLY MAGNOBOND 6398 BETWEEN MATING SURFACES WHERE INDICATED
  - 10) TOUCH UP CHEMICAL CONVERSION COAT ON ALL PARTS TRANSFER-DRILLED. (REF QSI 005 4.1)

QTY -041	QTY -042	P/N	DESCRIPTION
X		D3724-041	STEP ASSEMBLY
	X	D3724-042	STEP ASSEMBLY
2	2	D2734-1	END PLATE
8	8	D3730-1 ✓	ANGLE
1	1	D3733-1 ✓	GUSSET
1		D3737-1	STEP
	1	D3737-2 02622	STEP
1		D3738-1	STEP
	1	D3738-2 02622	STEP
1	1	D3747-1	DECAL
32	32	CR3216-5-4	RIVET
12	12	MS20470AD5-11	RIVET
4	4	MS20470AD5-16	RIVET
8	8	D3741-1 ✓	ANGLE
3	3	D3728-1	STEP BRACKET
1	1	D3729-1	STEP BRACKET

B	ADD -041 ASSEMBLY. ADD D3747-1 DECAL TO P/L. SHEET 2 TRANSFER MARKING INSTRUCTIONS FOR INSTALLING D3730-1 & D3741-1 ON D3728-1 & D3729-1 DELETED. SHEET 2 DETAIL C, D & SECTION E-E Ø0.159 WAS Ø0.098. ZONE D4 53.16 DIM WAS 53.22, 2.60 DIM WAS 2.66. ADD SECTION G-G.	AJS	08.02.26
A	NEW ISSUE	AJS	08.02.04
REV.	DESCRIPTION	BY	DATE
DESIGN	AJS	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	LE	DRAWING NO.	REV. B
MFG. APPR.	MA	D3724	SHEET 1 OF 2
APPROVED	MA	TITLE	SCALE
DE APPR.	MA	STEP ASSY	NTS
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DESIGN	AJS	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	AJS		
CHECKED	LE	DRAWING NO.	REV. B
MFG. APPR.	MA	D3724	SHEET 2 OF 2
APPROVED	MA	TITLE	SCALE
DE APPR.	MA	STEP ASSY	NTS
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